

From: [Jen Mott](#)
To: [BAYUK Dana](#)
Cc: [Ben Hung](#); [HAFLEY Dan](#); [Review, Data](#); [LACEY David](#); [LARSEN Henning](#); [Ilene Gaekwad \(imunk@foleymansfield.com\)](#); [Joe Burke](#); [John Edwards](#); [James Peale](#); [JOHNSON Keith](#); [Kelly Titkemeier \(kltitkemeier@maulfoster.com\)](#); [John Renda](#); [Mary Benzinger \(mbenzinger@maulfoster.com\)](#); [Crystal, Mike; "Mike Murray"](#); [Madi Novak](#); [Myron Burr \(myron.burr@siltronic.com\)](#); [Patty Dost](#); [Lance Peterson \(PetersonLE@cdmsmith.com\)](#); [Bob Wyatt](#); [Rachel Melissa \(RMelissa@pearllegalgroup.com\)](#); [Rob Ede](#); [BURKHART Robert](#); [Sheldrake, Sean](#); [Sarah Riddle](#); [\(b\) \(6\)](#); [Chip Byrd \(WByrd@sevenson.com\)](#); [Jen Mott](#); [Carl Stivers](#); [Rana Uhl](#)
Subject: RE: NW Natural, Evaluation of Rhone Poulenc Constituents
Date: Wednesday, October 12, 2016 9:26:28 AM
Attachments: [RPAC Evaluation 2016-10-12.pdf](#)

Dana –

Attached is the evaluation of Rhone Poulenc constituents that you requested in your May 26, 2016 email (below). Due to the size of the attachments, they are only included as part of the complete PDF on the FTP site. Attachment C to this document also serves as the groundwater chemistry database deliverable which is due 120 days after the completion of a groundwater monitoring event. The database file is included as a separate excel data file, updated with the sampling results from the June 2016 Source Control and Routine sampling event.

Instructions to access the FTP site:

To access the FTP site automatically using Windows Explorer please follow the steps below.

- From Windows XP desktop select Start -> Run or for Windows 7 select Start -> and click in the search box
- Copy/Paste the following line into the "Open" box for XP or the "Search" box for Windows 7 and hit "enter"
%systemroot%/explorer <ftp://000029-02.40%40000029-02.40:natural-11@ftp.anchorqea.com/>
- You should now be logged into the site using Windows Explorer. You can use copy/paste to move files to or from the site

To access the FTP site manually using a FTP browser like CoreFTP or Windows Explorer please use the info below.

- Site URL: <ftp://ftp.anchorqea.com>
- Username: 000029-02.40@000029-02.40
- Password: natural-11 (the 1's are ones)

To access the FTP site via web browser please follow the steps below.

- Click on the following link: <https://ftp.anchorqea.com/aq>
- Input the username and password that are listed in the above section
- Use the tools available directly to the site to download or upload

Please contact John Renda with any questions.

Thank you,
Jen Mott ☺
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by telephone at (503) 972-5014 or by email at jmott@anchorqea.com.

-----Original Message-----

From: BAYUK Dana [<mailto:dana.bayuk@state.or.us>]

Sent: Friday, June 17, 2016 7:17 AM

To: John Renda <jrenda@anchorqea.com>

Cc: Ben Hung <bhung@anchorqea.com>; HAFLEY Dan <dan.hafley@state.or.us>; Review, Data <datareview@sevenson.com>; LACEY David <david.j.lacey@state.or.us>; LARSEN Henning <henning.larsen@state.or.us>; Ilene Gaekwad (imunk@foleymansfield.com) <imunk@foleymansfield.com>; Joe Burke <jburke@sevenson.com>; John Edwards <jedwards@anchorqea.com>; Jen Mott <jmott@anchorqea.com>; James Peale <jpeale@maulfoster.com>; JOHNSON Keith <keith.johnson@state.or.us>; Kelly Titkemeier (kitkemeier@maulfoster.com) <kitkemeier@maulfoster.com>; Mary Benzinger (mbenzinger@maulfoster.com) <mbenzinger@maulfoster.com>; Crystal, Mike <mdcrystal@sevenson.com>; 'Mike Murray' <mmurray@maulfoster.com>; Madi Novak <mnovak@maulfoster.com>; Myron Burr (myron.burr@siltronic.com) <myron.burr@siltronic.com>; Patty Dost <pdost@pearllegalgroup.com>; Lance Peterson (PetersonLE@cdmsmith.com) <petersonle@cdmsmith.com>; Bob Wyatt <rjw@nwnatural.com>; Rachel Melissa (RMelissa@pearllegalgroup.com) <rmelissa@pearllegalgroup.com>; Rob Ede <robe@hahnnenv.com>; BURKHART Robert <robert.burkhart@state.or.us>; Sean Sheldrake <sheldrake.sean@epa.gov>; Sarah Riddle <sriddle@pearllegalgroup.com>; (b) (6); Chip Byrd (WByrd@sevenson.com) <wbyrd@sevenson.com>

Subject: RE: NW Natural, Detections of 1,2-Dichlorobenzene in the HC&C System

Hello John.

DEQ reviewed NW Natural's June 10, 2016 e-mail responding to our May 26th request for further evaluation of 1,2-dichlorobenzene detections in samples collected from extraction well PW-1L and the influent to the Siltronic Pre-treatment Facility. DEQ understands from the June 10th e-mail that NW Natural will conduct the evaluation as requested. In addition, DEQ acknowledges that NW Natural expanded the scope of the sampling and analytical work to include dioxins and furans.

DEQ approves the June 10th e-mail subject to our comment regarding analysis of dioxins and furans and NW Natural providing additional information about collecting the Siltronic Pre-treatment Facility influent sample, as follows:

* The text of the e-mail indicates that EPA method 8280A will be used to analyze samples for dioxins and furans. The Table 1 attachment shows that EPA Method 8290 will be used. DEQ requests that NW Natural use EPA Method 8290A for these analyses (i.e., high-resolution gas chromatography/high-resolution mass spectrometry [EPA Method 1613B equivalent]).

* The e-mail indicates that the Siltronic Pre-treatment Facility influent sample will be collected as a 24-hour composite. Please confirm DEQ's understanding that the sample collection methodology will be consistent with those currently used for collecting samples of the Main Treatment Plan effluent.

As indicated in DEQ's May 26th e-mail, the results of the work that NW Natural is going to complete will be used to determine whether the HC&C system monitoring program and/or waste-stream determinations should be expanded to include constituents associated with the Rhone Poulenc groundwater plume; and whether operational adjustments to the HC&C system should be considered.

DEQ acknowledges and appreciates the work NW Natural will be conducting to further evaluate groundwater entering the HC&C system.

Please feel free to contact me with questions regarding this e-mail and hope your day goes well.

Dana

Mr. Dana Bayuk

Cleanup Program Project Manager/Hydrogeologist Oregon Department of Environmental Quality Northwest Region

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Please visit our website at <http://www.oregon.gov/DEQ/><<https://deqmail.deq.state.or.us/owa/redir.aspx?C=xpW59Hf5PUaZQh14CmQilBhMMhcOKtAICv8HjAWBmf41qjKIUXf-S2Jkwgyvoh92WdxoWiGazVI.&URL=http%3a%2f%2fwww.oregon.gov%2fDEQ%2f>>

From: Jen Mott [jmott@anchorqa.com]
Sent: Friday, June 10, 2016 1:10 PM
To: BAYUK Dana

Cc: Patty Dost; Rachel Melissa (RMelissa@pearllegalgroup.com); Sarah Riddle; Ben Hung; John Edwards; Rob Ede; (b) (6) Chip Byrd (WByrd@sevenson.com); Crystal, Mike; Joe Burke; Review, Data; Ilene Gaekwad (imunk@foleymansfield.com); Sean Sheldrake; Lance Peterson (PetersonLE@cdmsmith.com); JOHNSON Keith; Bob Wyatt; HAFLEY Dan; LARSEN Henning; LACEY David; BURKHART Robert; John Renda; Jen Mott; James Peale; Kelly Titkemeier (ktitkemeier@maulfoster.com); Madi Novak; Mary Benzinger (mbenzinger@maulfoster.com); 'Mike Murray'; Myron Burr (myron.burr@siltronic.com)
Subject: RE: NW Natural, Detections of 1,2-Dichlorobenzene in the HC&C System

Dana –

In your May 26, 2016 email you requested that NW Natural perform the following tasks:

1. Compile information for Rhone Poulenc constituents available from sampling the HC&C system, and lower Alluvium WBZ and deep lower Alluvium WBZ in the northern portion of the Siltronic Site and southern Gasco Site
2. Collect and analyze samples from PW-1L and the influent to the Siltronic pre-treatment facility for Rhone Poulenc constituents, including volatile organic compounds, semi-volatile organic compounds, organo-chlorine insecticides and chlorinated herbicides
3. Evaluate the detections of Rhone Poulenc constituents in the context of HC&C system operations, particularly at PW-1L.

NW Natural is not responsible for investigating or remediating contaminants in groundwater migrating from the Rhone-Poulenc facility or other off-site sources.

<http://www.deq.state.or.us/lq/pubs/docs/cu/OffSiteContaminantMigrationPolicy.pdf> Nonetheless, NW Natural is prepared to collect samples from PW-1L and the influent to the Siltronic pretreatment plant and to analyze those samples as requested as part of our routine groundwater monitoring program. The sample from the Siltronic pretreatment plant will be collected as a 24-hour composite sample. Samples from these two locations are already analyzed for VOCs and SVOCs. Table A-1 from the Sampling and Analysis Plan included in the Performance and Monitoring Plan (submitted to DEQ in May 2015; attached). Table A-1 shows the analyte list, analytical methods, and target reporting limits for VOCs and SVOCs that we currently follow. Organochlorine pesticides, chlorinated herbicides, and dioxins and furans will be added to the analytical list during the next scheduled monitoring event for extraction well PW-1L and the influent to the Siltronic pretreatment plant. Table 1 shows the analyte list, analytical methods, and target reporting limits for the organochlorine pesticides, chlorinated herbicides, and dioxins and furans. The analytical methods are summarized below.

- VOCs by EPA method 8260B

- SVOCs and PAHs by EPA method 8270C
- Organochlorine pesticides by EPA method 8081B
- Chlorinated herbicides by EPA method 8151A
- Dioxins and Furans by EPA method 8280A

Sampling of the extraction wells (including PW-1L) was planned for earlier this month, but is on hold in anticipation of including the additional analyses described above. Likewise, sampling of the influent to the Siltronic pretreatment plant is also on hold until we have DEQ concurrence on the analytical methods. Presuming DEQ approves the methods identified above by June 22, 2016, samples will be collected the week of June 27, 2016.

As requested, the results of this sample collection effort for these two samples will be reported to DEQ within 60 days of receiving laboratory analytical results.

NW Natural will also compile existing monitoring data for the Rhone Poulenc constituents available from sampling the HC&C System and lower Alluvium WBZ and deep lower Alluvium WBZ in the northern portion of the Siltronic Site and southern Gasco Site and evaluate the detection of the Rhone Poulenc constituents in the context of HC&C system operations.

Please contact John Renda with any questions.

Thank you,
Jen Mott :)
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From: BAYUK Dana [<mailto:BAYUK.Dana@deq.state.or.us>]
Sent: Thursday, May 26, 2016 1:11 PM
To: Bob Wyatt <rjw@nwnatural.com>
Cc: Patty Dost <pdost@pearllegalgroup.com>; Rachel Melissa (RMelissa@pearllegalgroup.com) <RMelissa@pearllegalgroup.com>; Sarah Riddle <sriddle@pearllegalgroup.com>; Ben Hung <bhung@anchorqea.com>; John Edwards <jedwards@anchorqea.com>; Jen Mott <jmott@anchorqea.com>; Rob Ede <robe@hahnenv.com>; (b) (6); Chip Byrd (WByrd@sevenson.com) <WByrd@sevenson.com>; Crystal, Mike <MDCrystal@sevenson.com>; Joe Burke <jburke@sevenson.com>; Review, Data <DataReview@sevenson.com>; Myron Burr (myron.burr@siltronic.com) <myron.burr@siltronic.com>; Ilene Gaekwad (imunk@foleymansfield.com) <imunk@foleymansfield.com>; Madi Novak <mnovak@maulfooster.com>; James Peale <jpeale@maulfooster.com>; Kerry Gallagher (kgallagher@maulfooster.com) <kgallagher@maulfooster.com>; Sean Sheldrake <sheldrake.sean@epa.gov>; Lance Peterson (PetersonLE@cdmsmith.com) <PetersonLE@cdmsmith.com>; JOHNSON Keith <JOHNSON.Keith@deq.state.or.us>; Dan Hafley <HAFLEY.Dan@deq.state.or.us>; LARSEN Henning <LARSEN.Henning@deq.state.or.us>; LACEY David <LACEY.David@deq.state.or.us>; BURKHART Robert <BURKHART.Robert@deq.state.or.us>
Subject: NW Natural, Detections of 1,2-Dichlorobenzene in the HC&C System

Good afternoon Bob.

DEQ reviewed the “1st Quarter Residual Package NW Natural Source Control Groundwater Treatment Facility” (1st Quarter Package) sent by e-mail on May 23, 2016. The 1st Quarter Package provides the results of collecting and analyzing samples of the following during January, February, and March 2016:

- Treatment system residuals (i.e., filter press cake and bag filter solids);
- Influent to, and effluent from the Siltronic and NW Natural pre-treatment facilities; and
- Influent to the Main Treatment Building.

Based on our review of the 1st Quarter Package and the results of groundwater monitoring data available through December 2015, DEQ observes that 1,2-dichlorobenzene (1,2-DCB) has been detected:

- At PW-1L on three occasions (March, September, and December 2015) at concentrations ranging from less than 1 microgram/liter (ug/L) to just above 6 ug/L;
- In the samples of influent to the Siltronic pre-treatment facility at concentrations between approximately 5 ug/L and just over 6 ug/L; and
- In the Main Treatment Plant influent at concentrations less than 1 ug/L.

The chemical, 1,2-DCB, is a constituent associated with the plume of groundwater contamination originating from the Rhone Poulenc site. The Rhone Poulenc groundwater plume is documented to occur in the northern portion the Siltronic Site in the deep portions of the lower Alluvium water-bearing zone (WBZ).

Although the concentrations of 1,2-DCB are low, the detections indicate there is the potential for extraction well PW-1L to be withdrawing other constituents occurring within the Rhone Poulenc groundwater plume. Based on this information DEQ believes further evaluation of this potential scenario is warranted.

DEQ requests that NW Natural further evaluate groundwater entering the HC&C system by:

- Compiling information for Rhone Poulenc constituents available from sampling the HC&C system, and lower Alluvium WBZ and deep lower Alluvium WBZ in the northern portion of the Siltronic Site and southern Gasco Site;
- Collecting and analyzing samples from PW-1L and the influent to the Siltronic pre-treatment facility for Rhone Poulenc constituents, including volatile organic compounds, semi-volatile organic compounds, organo-chlorine insecticides and chlorinated herbicides; and
- Evaluating the detections of Rhone Poulenc constituents in the context of HC&C system operations, particularly at PW-1L.

Prior to collecting samples from PW-1L and the influent to the Siltronic pre-treatment facility, DEQ requests that NW Natural provide a list of the laboratory analytical methods to be used for sample analysis on or before June 10th. DEQ further requests that sample collection and analysis occur as soon as practicable after DEQ approves the analytical methods, and that NW Natural provide the information indicated above in a single submittal within 60-days of receiving the laboratory analytical reports.

Constituents from the Rhone Poulenc plume are not currently included in the HC&C system monitoring program and/or the system waste-stream determinations completed to date. The data compilation and the results of analyzing groundwater at PW-1L and the influent to the Siltronic pre-treatment system will be used to determine whether the HC&C system monitoring program and/or waste-stream determinations should be expanded to include Rhone Poulenc constituents. In addition, adjustments to the HC&C system may be considered based on the results of the operations review and sampling data.

DEQ acknowledges and appreciates the substantial amount of work NW Natural has completed related to the HC&C system, and considers our requests for the information above to be necessary for planning long-term operations.

Please feel free to contact me if you have questions.

Dana

Mr. Dana Bayuk

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